

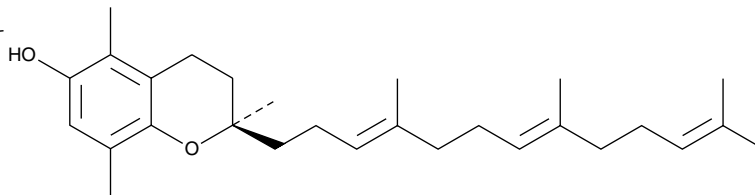
Product Information



β -Tocotrienol

Item No. 9001533

CAS Registry No.: 490-23-3
Formal Name: (2R)-3,4-dihydro-2,5,8-trimethyl-2-[4,8,12-trimethyl-3E,7E,11-tridecatrien-1-yl]-2H-1-benzopyran-6-ol
MF: C₂₈H₄₂O₂
FW: 410.6
Purity: \geq 98%
Stability: \geq 1 year at -20°C
Supplied as: A solution in ethanol
UV/Vis.: λ_{\max} : 293 nm



Laboratory Procedures

For long term storage, we suggest that β -tocotrienol be stored as supplied at -20°C. It should be stable for at least one year.

β -Tocotrienol is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of β -tocotrienol in these solvents is approximately 10 mg/ml.

β -Tocotrienol is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

The four tocopherols (α , β , δ , and γ) and four tocotrienols (α , β , δ , and γ) are forms of vitamin E, which is known for its antioxidant activity.¹ Tocotrienols are found in high concentrations in palm oil and wheat germ. β -Tocotrienol is a less potent antioxidant than α -tocotrienol (Item No. 10008377).¹ A high cholesterol diet supplemented with a mixture of α - and β -tocopherols and tocotrienols has been shown to lower hepatic cholesterol and cholesterol ester concentration and to reduce atherosclerotic lesions in ApoE^{+/-} mice.²

References

1. Kamal-Eldin, A. and Appelqvist, L.-Å. The chemistry and antioxidant properties of tocopherols and tocotrienols. *Lipids* **31**, 671-701 (1996).
2. Black, T.M., Wang, O., Maeda, N., *et al.* Palm tocotrienols protect ApoE +/− mice from diet-induced atheroma formation. *J. Nutr.* **130**(10), 2420-2426 (2000).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/9001533

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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